A monthly journal for manufacturers and designers

In this issue

BUSINESS AND THE INDUSTRIAL DESIGNER

DESIGN FOR OVERSEAS TRADE

1951 STOCK LIST: RECENT ADDITIONS

NEW METHODS AND MATERIALS

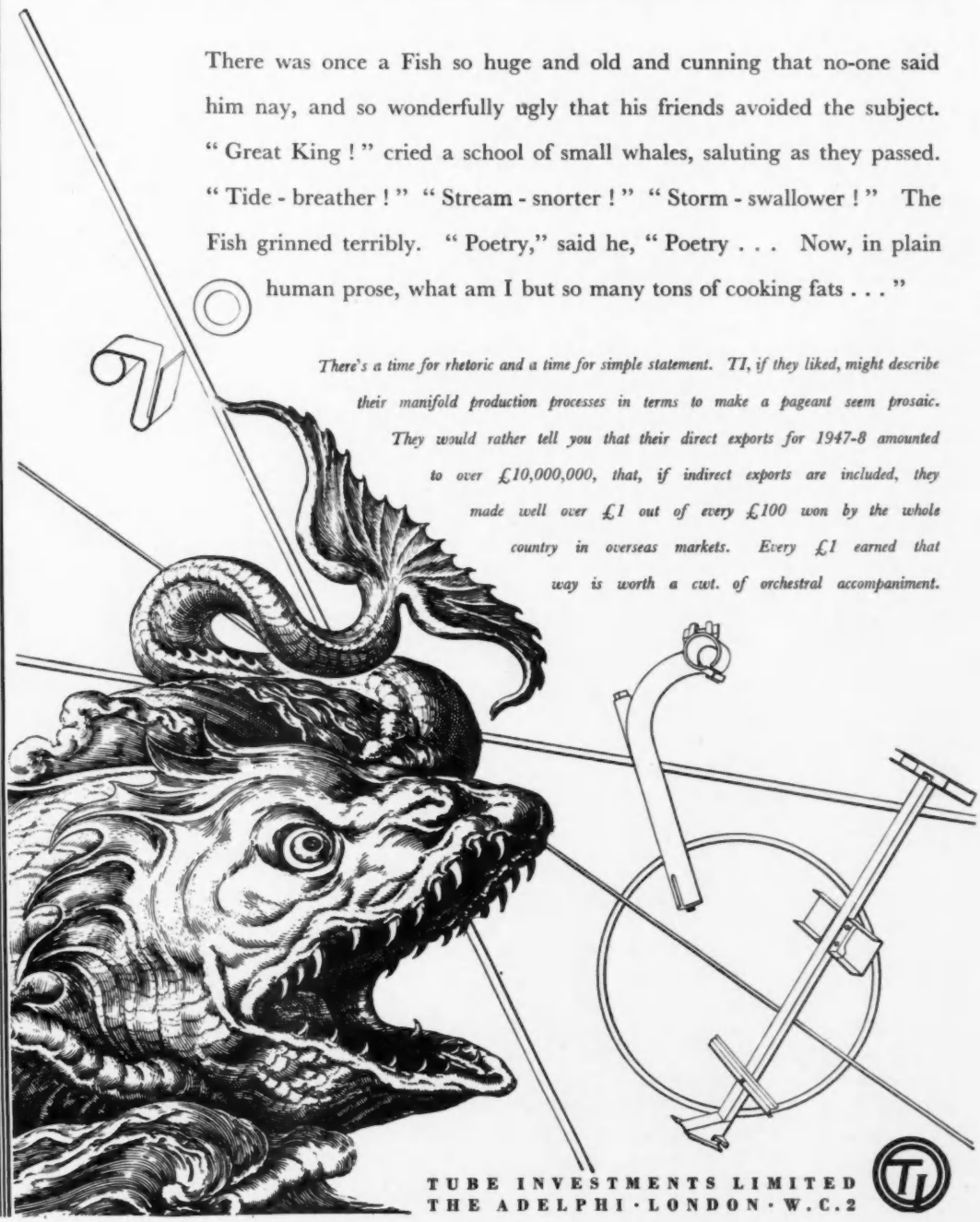
NUMBER 11 : NOVEMBER 1949

PRICE TWO SHILLINGS

The fable of the fish and the facts

There was once a Fish so huge and old and cunning that no-one said him nay, and so wonderfully ugly that his friends avoided the subject. " Great King ! " cried a school of small whales, saluting as they passed. " Tide - breather ! " " Stream - snorter ! " " Storm - swallower ! " The Fish grinned terribly. " Poetry," said he, " Poetry . . . Now, in plain human prose, what am I but so many tons of cooking fats . . . "

There's a time for rhetoric and a time for simple statement. TI, if they liked, might describe their manifold production processes in terms to make a pageant seem prosaic. They would rather tell you that their direct exports for 1947-8 amounted to over £10,000,000, that, if indirect exports are included, they made well over £1 out of every £100 won by the whole country in overseas markets. Every £1 earned that way is worth a cwt. of orchestral accompaniment.



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DESIGN

A monthly journal for manufacturers and designers

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NUMBER 11 : NOVEMBER 1949

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DESIGNERS IN BRITAIN

THAT GOOD industrial design, as Gordon Russell says, is *not* something arty, precious or high falutin' is proved again with the publication of the second edition of *Designers in Britain*.* What is also shown, and is recorded here with relief, is that a book devoted to the graphic and industrial arts can go to press innocent of text and exhortation and devoid of that metaphysical verbiage with which these subjects are so often garnished. In this volume no one tries to tell us that "when an object is designed, all its abstract components are, consciously or subconsciously, assembled," or that "the designer's task is the effective control of his physical environment."

The short answer to such esoteric double-talk is that the designer's task is to deliver the goods. Industrial design is better seen than heard and nowhere, short of an actual exhibition, can it be better seen than in these biennial reviews of the work of Britain's leading contemporary designers. Had such volumes been published throughout our industrial history, there would be little argument today about the meaning of "contemporary design." We would be able to trace the rise and fall of each succeeding vogue, to watch how a good idea is first pioneered by the few and scorned by the many, then generally adopted and almost immediately debased, and to judge for ourselves what are those peculiar qualities which endow one design with lasting validity while its neighbour heads straight for limbo.

But we shall have to wait several years before this excellent series can be used for historical comparisons. Meanwhile the present volume is a useful guide to current standards. It suggests, for instance, that the design of table radios may be nearing its final form from which there will be only deviations of detail until some radical internal innovation comes along. It raises our hopes that both craft-based furniture made in small quantities and machine-based furniture for normal production may each be discovering its own idiom. Such a sorting out could be the beginning of a great improvement in design.

It reveals a deplorable poverty of ideas, except of the most clinical kind, in the domestic light-fitting industry. It proves by its one example what an enormous field of opportunity lies in the redesign of factory-made fire-surrounds—than which, in general, nothing uglier afflicts the English home. It challenges our master cutlers and, surprisingly for a seafaring nation, our makers of marine equipment, for one might assume from their absence from the book either that they have produced nothing new in the last two years or that they do not employ competent designers (or were these perhaps editorial oversights?).

And lastly it confirms our view that the textile industry is rich in talent; that domestic hardware is usually decent; that the design of instruments and industrial equipment is rapidly improving and would be better still were more attention paid to the lettering; that somebody should have another go at a contemporary clock; and that editors should learn that there are more than a couple of firms in the Potteries. We notice, too, with approval that the product design section has this year been given precedence over the commercial art sections of the book, and that a few pages of students' work have been included. It now needs only an index of companies and patrons as well as of designers to complete this excellent and useful work. P. R.

* For price and details see Notebook, page 28

Business and the Industrial Designer

by George Nelson

This outstanding article was first published in *Fortune*, the leading American business magazine. We reprint it here in full because its arguments are equally valid in any industrial and commercial community. George Nelson is well known in the States as a designer of furniture, lamps, clocks and exhibition displays; and as joint editor of *Interiors*, magazine of decoration and industrial design

FOR MORE THAN two decades the industrial designer has been built up as the great packager, the super prognosticator, the sales engineer, the answer to many of US industry's merchandising ills. This reputation he has justified more often than not, but the real reason he exists is because an increasing segment of the population is finally beginning to realise that a machine product can look like a machine product and still be beautiful.

It is only during the past century that the notion of associating an artist with manufacture has seemed strange. Mankind has always devoted an enormous amount of energy to the thoughtful shaping of things for common use. If one could resurrect an Athenian of 500 BC and confront him with the news that this refrigerator or that toaster had been designed, he might be intrigued with the unfamiliar mechanics, but the fact that these products had been deliberately formed to produce a pleasing appearance would strike him as utterly commonplace. With the Industrial Revolution this simple view was lost; the last century and a half has been a period of tastelessness in product design that has no known parallel in history. So when the industrial designer came along and began turning out objects that actually looked as if they belonged in the twentieth century, it was small wonder that considerable excitement was generated, or that the public eagerly purchased his wares. It was the first chance in a long, long time that people had to satisfy a deep-seated, unconscious craving for quality.

The contribution of the designer, from this viewpoint, has been one of genuine social importance, but it must not be assumed that he was responsible for the circumstances in which he found himself. The spadework that prepared the public, the manufacturers, and the design profession itself for an acceptance of the idea of honest, logical design of machine products was done by others.

The events that led to the emergence of industrial design go back to the beginnings of manufacture in the seventeenth century. Division of labour and the later introduction of machinery destroyed the handicrafts, and with them an understanding of design in its relationship to materials, processes, and use. Taste degenerated to the point where the young Victoria, when she opened the 1851 Exhibition in London, was able to view the greatest collection of man-made horrors ever assembled under one roof. A few people who looked at what had happened were able to see the decay that had ruined design in every field, but their reaction (as in the case of William Morris) was a blanket condemnation of manufacturing and an attempt to turn the clock back by reviving the handicrafts. The real revolt, however, was precipitated by the engineers, who by the late 1800's were putting up enormous structures of steel and glass whose lacy appearance completely upset the traditional concept of what a building should look like. These structures were invariably types that had no sentimental associations—bridges, stations, and exhibition buildings. The painters and sculptors were gradually drawn into the trend. Picasso's *Les Demoiselles d'Avignon*, the first Cubist picture, was painted in 1907. It horrified the critics then and is perhaps incomprehensible to most people today, but it was followed by a world-wide series of experiments in abstract painting, which, whether you like it or not, have had a tremendous influence on

advertising art, typography, magazine layout, and industrial design.

It has been the glib assumption of most manufacturers and designers that the prime function of industrial design is the creation of added sales appeal. Actually this is a temporary and superficial aspect of the designer's activity, far less important in a long-term sense than his part in the job of reintegrating a society shattered by the explosive pressure of a new technology on institutions unable to cope with it.

This may sound like talk straight out of the ivory tower, but it happens to be a fact that there has never been a society with sufficient vitality to survive in which there was not a direct and healthy connection between the arts and the business of daily living. In this particular time most of the traditional arts are dead or moribund. But it is possible to arouse a genuine interest in the curve of a fender or the shape of a kitchen sink.

The man who would be tongue-tied in front of an abstract sculpture by Henry Moore will become quite articulate when confronted by a power-driven meat slicer that may incorporate similar shapes. The case is even clearer with the motorcar, since people have long since stopped bothering about mechanical features, and their judgments are based almost entirely on design. A lot of what passes for industrial design today is not much above the picture-postcard level, but that is unimportant: a direction has been established for the development of industrial products and it involves use of the artist by the business man for the purpose of increasing sales.

When the industrial designer first presented himself, hat in hand, to US industry, he was neither engineer, architect, nor painter, which seems strange because it was these three who set the stage for his appearance. He was, instead, a typographer-illustrator (Teague, Guild) or an engineer-fashion-illustrator (Loewy) or a theatre designer (Geddes, Dreyfuss, Russel Wright) or a custom body builder (Harley Earl, Alexis de Sakhnoffsky) or a textile designer (Tom Lamb) or a haberdashery salesman (Jack Morgan) or a museum director (Harold Van Doren). The architects, engineers, and painters failed to take over because they sensed neither the need nor the opportunity. The architects, in the middle 'twenties, were busy turning out gentlemanly forgeries of English country houses and Italian villas for their clients; engineers, detached from their slide rules, tend to become self-consciously arty; the painters had no interest in acquiring the necessary minimum of technical knowledge. But the main reason the first designers were drawn from such improbable and

Wurlitzer juke-box: Lincoln automobile

varied sources was the connection between design and sales. The discovery that one could sell more of a product by giving it a series of beauty treatments had to be made—in this country at least—by people who were in contact with the problems of sales and display.

The depression of the 'thirties was, paradoxically, one of the things that put the industrial designers on their feet, for many manufacturers came to them out of sheer desperation, and in a surprising number of instances the gamble paid off. What the designers had to offer was simple but immensely valuable—it was a kind of imaginative common sense that related the product to the user in ways that had never occurred to the manufacturer or to his engineers. When Henry Dreyfuss did his first alarm clock, for instance, he took the trouble to find out how people bought them, and he noticed, among other things, that each customer tended to weigh the clocks in his hands

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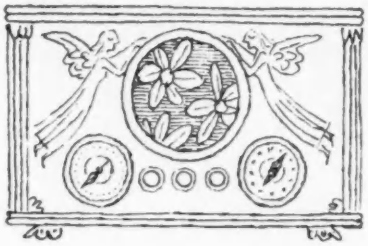

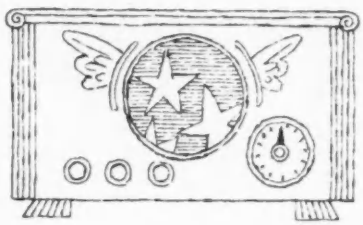

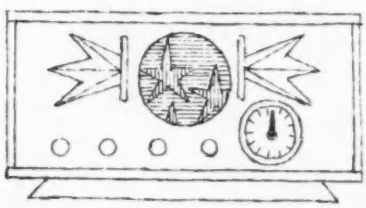

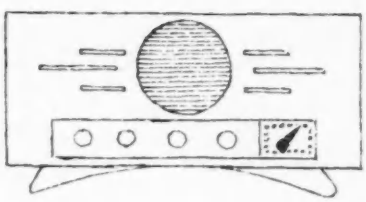

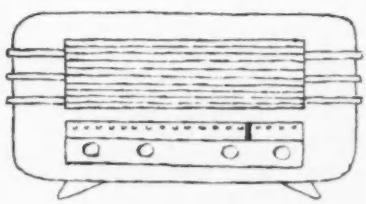

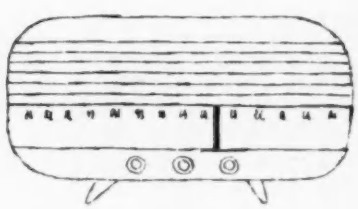

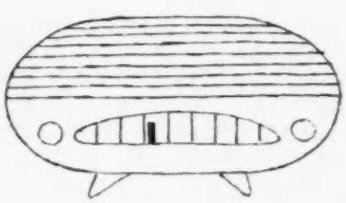

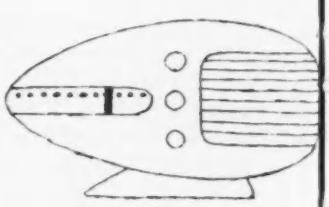

before making a choice. So Dreyfuss added weight to his new clock and watched the sales go up. The same thing happened when colour was added to kitchen utensils, or when the handle of a potato masher was made easier to grip. These discoveries and others like them do not seem very important in retrospect, but they began to open manufacturers' eyes to the fact that their customers were people equipped with definite tastes and with an ability to make a choice when it was offered to them.

To the manufacturer the designer has one possible function, and only one: to implement a sales programme. Obviously the designer has to implement sales—but so does the president of the company, for that matter. If the relationship between the average industrial designer and his client is loaded with insecurity and compromises, as it frequently is, or if he sees himself as nothing more than a kind of super-stylist, then the century-long evolutionary process that led to his appearance would seem to have been pretty much a waste of time.

It is entirely possible for a man with the ability and the integrity to establish a position as a member of a company's policy-making group, with freedom to make his influence felt not only on product design but on all matters of general policy that affect design. It is at this level that the top-flight designer can really earn his fee, for his design activity can then be integrated with a long-term, consistent policy he has helped to make. If the designer is to exert a genuinely constructive influence he has to occupy a position in which he can operate over a broad range, but the manufacturer is not going to ask him to do so (there is no reason why he should), nor will the designer make the necessary moves until he sees

As with many other objects, table-radio design h olved "modernistic" missile shapes. One exception is t thrigh

himself and his profession in the light of his tradition and its enormous social potential.

As things stand today, the industrial designer functions in a limited area between the manufacturer and an anonymous, inert, and somehow terrifying public. Concentration on what may sell and what might not, on the real or imagined conservatism of the consumer, on fashion trends of whatever description, has merely served to keep the design level down to a "safe" mediocrity, for both manufacturer and designer spend so much energy worrying about the public that not much is left for the product itself. The result is visible wherever one looks—a monotonous conformity between competing products.

The motorcar, in terms of prestige, fees, complexity, and influence on other products, is one of the real plums for the industrial designer. It also represents the bigger problems that face any manufacturer of consumer goods, and the lesson to other industries is clear. Competition between motorcar manufacturers in USA is on two levels: three companies turn out most of the cars, blanket the field with advertising, support the largest research and development programme, have the largest and strongest dealerships; against them is arrayed a larger group of small producers, whose only real chance to compete is on a design basis. Yet the general tendency of the little manufacturers is to tag along after the Big Three in the apparent hope that this course is the safest, although in point of fact it is the most risky because it means competing on the most unfavourable terms possible.

The one exception in the field is Studebaker, in which Raymond Loewy demonstrated with great clarity the one way open to the small manufacturer: design leadership. By putting out a car that incorporated a number of distinct design improvements (short hood [bonnet], glassed-in rear, etc), Studebaker managed to get quite enough word-of-mouth publicity to make up for the difference between its advertising budget and that of the larger producers. More significantly, it established itself as a distinct entity in the public mind in the only effective way it could—through the appearance of the product itself. And there emerges here another fact almost always ignored by the small producer: it doesn't matter if *all* the people don't like the Studebaker. Studebaker is not trying to sell a million and a half or two million units; it is trying to sell, say, 300,000.

The last point is the most important single factor in the relationship between manufacturer and industrial designer. So much attention has been given to the fact that we Americans are a nation of mass producers that no one remembers that most producers are small, with no chance whatever of reaching a mass market. Yet design programmes are almost invariably set up on the assumption that the finished product must please most if not all of the 147 million people in the US.

In other words, for most manufacturers in the low brackets, *the radical approach to design may be the safest business approach.* If one can produce 100,000 units of anything in a market with a potential of ten million, the conservative move might be to bring out a design that not more than 500,000 people could possibly like, rather than scramble for a piece of the big market on the same basis as everyone else.

If it is desirable to keep a substantial proportion of the economy in the hands of the relatively small producers—and most people seem to feel that it is—then the role of the industrial designer can take on a social meaning far greater than anything he has yet claimed for it. Attempts to protect small business

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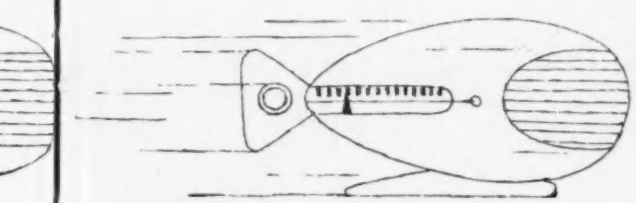
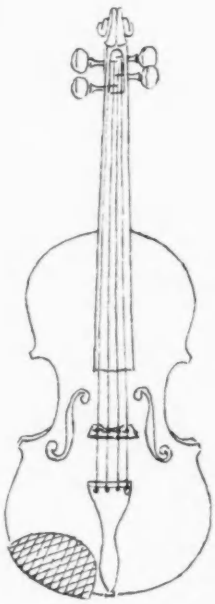
ign h olved from corny period pieces toward
n is t thright design of the Hallicrafters (right)





Many "undesigned" objects exert a powerful appeal on the basis of honesty, or grace, or both

by legislation have always boomeranged in the long run, and they always will as long as the consumer is free to act as the final judge. The one great asset the small manufacturer can count on is his ability to move further and faster—in a design sense—than the huge organisations that have to operate more cautiously in producing for a true mass market. But this job can be done only by a manufacturer with courage and vision, in collaboration with a designer possessing the same qualities, and it should be added that the job involves more than surface styling: it requires a fundamental re-evaluation of the product, and an advertising and promotion programme comparable in quality to the finished product itself. Which is why the designer has to be taken in at the beginning, and allowed to function at top-policy level.

The excitement produced by the display of a new model jet plane, not even in the air, where it moves at ten miles a minute, is in large part created by the unusual perfection and expressiveness of the design. It is an articulated expression of a set of functions, which merely means that one can figure out what the thing does by looking at it. People react to this kind of thing instinctively. An example on another level is the construction of a modern house in an otherwise conventional neighbourhood. The excitement produced here is of the same general order: the modern house (if it is any good) reveals something about the nature of modern living that the pseudo-Colonial houses do not. That the general reaction is often extremely unfavourable is of no particular importance —people become alarmed and indignant when their own dishonesty (and the building of an imitation period house in the middle of the twentieth century can be described in no other way) is exposed. The excitement is genuine, whatever form its expression takes.

If a designer follows the path taken by the aeronautical engineer, it might logically be concluded that he is going in a direction that makes sense. In recent years, however, designers have not always done that. With identifying labels stripped off, it is almost impossible to tell what much twentieth-century equipment is supposed to do: it is often hard to tell at a glance whether you are looking at a furnace, a home freezer, or a washing machine. We have here a manifestation that is the exact reverse of articulated design, something more closely related to the hoop-

skirt than the jet plane, in spite of the fact that superficially the forms are derived from "streamlining." What this means to the manufacturer—or should mean—is that a danger signal has been flashed. Obviously, if the best an industrial designer can do is enclose an apparatus of whatever description with a skirt of sheet metal, decorating the surface with a few parallel lines or a chromium-plated grille, the manufacturer could do just as well (and save a lot of money) by reaching into a hat full of dream sketches. The real danger signal, however, is the indication that the product has reached the end of its development in its present form, and that plans should be made to anticipate long-term changes.

The refrigerator is an excellent case in point. This mechanically perfected product has reached a stage where the designer has little to do beyond a packaging job. He can make certain modifications in the interior, redesign the door handle, and do a certain amount of decoration on the outside, but no matter how great the effort expended it is no longer possible to find a refrigerator that is dictinctive. It has become a standard box with a few bulges and a little chromium. The real design problem, in the case of the refrigerator, is not more styling, but *its destruction as an independent visual object* and its incorporation in a larger unit such as the entire mechanical kitchen. Obviously, with some 40 million homes in the US, the market for free-standing refrigerators will continue for decades. What is meant is simply that the designer's work (beyond a purely cosmetic job) is pretty much finished, and that the growing future market will shift toward more complex units.

It may be objected that the designer has no choice in the matter—if a client is making refrigerators and wants them restyled, the designer is in no position to turn the entire factory upside down. Which is perfectly true. But the designer will not fulfil his complete function unless he sees these trends in advance of the manufacturer, and assists his client in the formulation of policies that will take them into account. *This is why industrial design belongs in the research and development of a manufacturing enterprise (as some of the leading designers have pointed out) instead of being tied completely to sales.*

In barely two decades industrial design has shifted from a series of accidental moves by a handful of alert and intelligent people to a stable profession that is numerically rather small, but with an influence on industry and consumer tastes that is entirely without precedent. Because of the suddenness with which it emerged, and because of the excitement inherent in its activities, it has been publicised far more than any other type of professional group in a way that has frequently been misleading (and extremely distressing to its more sober members). But the harm done by an occasionally over-enthusiastic or inaccurate article has been as nothing compared with the damage caused by incompetents who have collected their fees from manufacturers and delivered nothing of value in return. In preparation of this article a few dozen letters were sent to representative manufacturers, asking what they considered the major contribution of the industrial designer, his greatest weaknesses, whether fees were reasonable or excessive, etc. The replies, on the whole, give the profession a fairly clean bill of health, but the minority that were "burned" (by excessive fees, inadequate service, or no service at all) show a bitterness that will take years to eradicate. Practically all of the replies indicate that in the eyes of the producer the industrial designer is no more than a stylist—an attitude that, on the basis of majority performance, is justified, and will be changed only by the development of a larger group within the profession that is more concerned with the broader, long-term aspects of its work than with the immediate returns on current accounts.

At his best the industrial designer is an integrator of all the arts. The lines seem to be breaking down between the arts much as they have in the sciences, and separate professional groups such as architects, graphic artists, engineers—and even sculptors—have already been merged to some extent in the industrial designer's office. In this process there is a distinct parallel to the artist of the Italian Renaissance, who was often a painter, sculptor, goldsmith, architect, military engineer, and theatre designer in one, but the analogy can be stretched only so far, because today's designer is more likely to be a group of collaborators than an individual.

Nevertheless, *as an individual* he is supposed to be able to give creative direction to work in a great number of different fields, and the student training that has begun in some schools makes the same assumption. The responsibilities imposed by so tremendous a range of activity have already been touched upon, and the opportunities for constructive accomplishment (the business opportunities have already paid off handsomely) are in proportion. But, by an interesting contradiction, the industrial designer will be able to assume the role open to him only if he rejects the manufacturer's present concept of his function. The designer must put his job of increasing sales into its proper perspective, and accept himself for what he has to be: an artist. This is

continued overleaf

not going to be easy, because the word scares him to death.

The acute uneasiness shown by the typical designer when one suggests that his function is that of an artist is in actuality nothing more than a reflex of his clients' attitude. He goes to considerable lengths to assure them that he is really *not* an artist, but a new kind of sales engineer (or whatever), and he takes offices in the best office buildings, instals expensive-looking interiors and pretty receptionists—all to demonstrate what a responsible citizen he is. A majority of designers end up by believing that they really are a special kind of business man. To the same and sensible business man of the past hundred years the word "art" was certainly nothing to inject into a going business. Business men, to be sure, have been among the greatest collectors of all time, but never did the Fricks, the Morgans, and the Mellons succeed in establishing a connection between the pictures and statues on which they spent so much time and money, and life in the world as it is. The concept of the artist as an ordinary mortal, just like a baker or banker, died out with the Industrial Revolution and is only now being revived.

The industrial designer is an artist because he shapes things in an effort to give order and beauty to a mass of material, and because in so doing he infuses an emotional content into an inanimate object. This emotional factor operates when the housewife buys toaster X instead of toaster Y, which sells for less money—it has to operate because both toasters function in about the same way and only an engineer could possibly tell which is mechanically superior. Everything else the designer does—everything that goes beyond his function as an artist working in industry—is a secondary or a subsidiary activity. He will be judged ultimately on the appropriateness with which he shaped the things handed to him.

In the end, even this most prosperous and glamorous and complicated of professions comes down to a thing that is very old and very simple: one man's integrity against another's, one man's capacity as a working artist against another's, the vision with which he establishes his standards and the courage with which he sticks by them. The rest is trimming.

Ludwig Lobmeyr glass, Czechoslovakia: 1856

Lincoln coupé: 1939

Economy makes for character in design

IBM electric typewriter: 1948*: Eliot Noyes, designer*

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DESIGN FOR OVERSEAS TRADE IN CONSUMER GOODS

To sell more in export markets, good design is essential: but alone it is not enough. Britain must ensure that the overseas consumer *sees* the well-designed goods she makes

by John W. Waterer, FRSA, NRD, FSIA, MIEx*

A FALLACIOUS ACCUSATION appears in print all too frequently, vaguely charging British manufacturers with the "sending" overseas of products which, to put it mildly, are not representative of the best standards. Unfortunately, it is not to be denied that such products are seen abroad, to the general disrepute of this country, but it must be emphasised that British manufacturers do not irresponsibly scatter their goods in shops abroad: they usually execute orders placed by overseas buyers who are under no compulsion to purchase here, who "know what they want" even if they do not always consider the best interests of the consumer, and who, as is often the case here, are loth to experiment with untried models. The facile way of selling goods made down to a price, by appeal to the mass-mind ("10,000,000 women can't be wrong"—can't they?) is often a serious obstacle to the sale of really well-designed and well-made products. To satisfy irresponsible or conservative tastes poses, for the enterprising manufacturer, many awkward problems which nevertheless have to be faced, particularly in a time of currency shortage. If Canadians desire reproductions of Georgian or Victorian highly-ornamented silver-plate, or outmoded styles in pottery; or if Americans specify traditional designs in linen damasks, rather than the best work of our contemporary designers, we cannot afford to disregard their wishes—even when the manufacture of both traditional and contemporary styles clogs production. But neither can we afford, on a long-term view, to ignore the importance of progress, of keeping pace with contemporary developments and changing tastes and habits.

It is axiomatic that successful export trade in consumer goods depends upon intimate knowledge of the conditions, tastes and idiosyncracies obtaining in each individual market. What is not so generally recognised, except by experienced exporters, is that merely to copy what is found on exploratory journeys is futile: the only justification would be delivery at lower cost, at present a most unlikely possibility, especially to America and Canada. The ineluctable basis of international trade is the exchange of dissimilar products, the tempting of the consumer with things that are different, better or cheaper, compared with those already available. We are left with the first two conditions; the third, especially if in competition with America's vast resources, courts disaster.

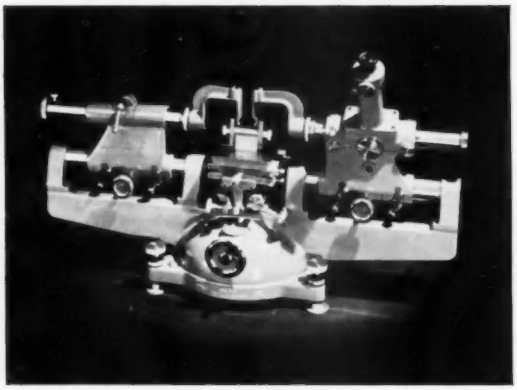
In some fields Britain is actually ahead of consumer tastes in other countries: the problem is to find a way, first of producing goods likely to appeal, and second of securing the interest of the consumer and gradually leading him forward. Broadly, the strength of British industry lies in its sense of quality and good workmanship as opposed to the principle of galloping consumption (enemy of good design; progenitor of "streamlining," "styling" and other doubtful measures) which conditions so much of the industrial design and production of the western world and which it is neither desirable nor possible for us to

continued overleaf

* Managing director of S. Clarke & Co Ltd and a vice-president of the Design and Industries Association

Tool-kit stowage in lid of luggage boot of a Daimler coupé. Special coachwork by Freestone & Webb Ltd

Below: horizontal measuring machine by E. R. Watts Ltd



DESIGN FOR OVERSEAS TRADE IN CONSUMER GOODS

continued

emulate. We must retain our integrity, and endeavour to persuade the oversea consumer that where we have superior quality to offer against ephemeral, low-priced alternatives, the necessarily higher cost is a paying investment. The present attitude of many countries, including our own, towards what are often arbitrarily regarded as luxury goods needs revision, in view of the importance of maintaining markets capable of purchasing quality. Planning of industrial production is meaningless if, as is happening now, it destroys ideals, quality and craftsmanship, and with them the incentives to real progress and the acquisition by some, even if unattainable by all, of the fine things of life. The realistic approach of France to such matters might be studied with advantage.

Historically, British exports arose out of things produced here for home consumption. This remains an essential condition, and the present emasculated state of the home market through purchase tax and other artificial restrictions is a tragedy for some trades, especially those operated on a craft basis. Broadly, the features which appeal to consumers of any country are those arising out of the way of life of another, which are different and therefore engaging; they must take into account those diversities of conditions and

"The strength of British industry lies in its sense of quality and good workmanship. The necessarily higher cost of superior quality is a paying investment"

Coffee set designed and made by Frank Cobb & Co Ltd, 1946

Title-page of a book for the Limited Editions Club of New York, designed by Sir Francis Meynell, RDI; printed by R. & R. Clark Ltd, Edinburgh, 1940

outlook, a knowledge of which can only be gained at first hand by responsible persons. This is a very different matter from the take-it-or-leave-it attitude of which complaint has been made (which incidentally is by no means peculiar to this country). Necessary modifications can be made to established types, tried and tested on the home market, but few if any trades can evolve *de novo* solely for export. There must be an existing basis of experience and skill—of what our American friends term "know-how"—on which to develop with confidence and hope of success. Constant practice and experience constitute the only recipe for skill and excellence in any field. When the sellers' market has finally disappeared, what will appeal to overseas consumers in our motor-cars will be those characteristics in which they differ from and surpass other countries'—not Americanised radiators and contours which represent ephemeral styling largely unrelated to function.

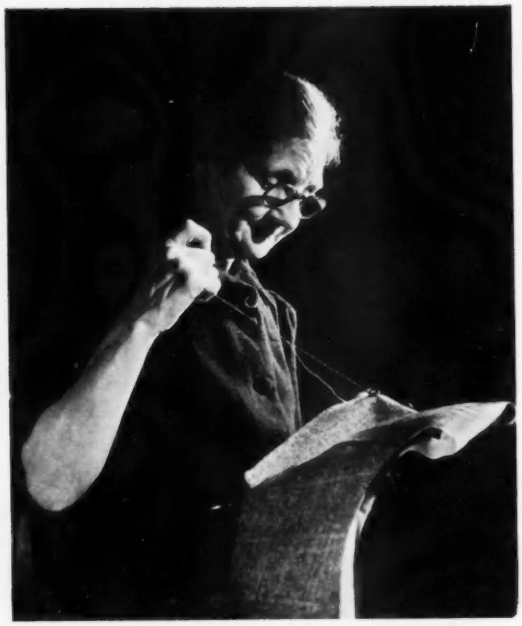
Goodwill towards Britain and her products is gratifying, but we shall not sell on sentiment alone; the world will buy our products only if we make them sufficiently desirable and offer them at prices which the consumer can be persuaded are compatible with the value offered. The burning question of our high production costs cannot be discussed in this article—though it may be relevant to point out that they result in some measure from the social improvements in which Britain is, as in the past, pioneering; and in part from the burden resulting from the war. There is no reason why this should not be made clear. No doubt in some industries the increases can in due course be offset by improved machinery and methods, but this can hardly apply in the craft industries, to which we must largely look for maintenance of quality standards and other values which we must retain at all costs. The rapid spread, and commercial satisfaction of herd taste, inimical as it is to the survival of the essentially creative and satisfying "folk arts," must be viewed with the utmost apprehension, for these, surely, form a basis of the craftsman's attitude to his job. Even governments, supposed by some to be all-wise, do not perceive this, as witness the recent attempt to destroy the ancient tradition of "rose and castle" decoration of inland waterway barges.

Meanwhile, the problem is to persuade overseas consumers (only a small percentage of whom will ever visit this country) that what Britain has to offer is advantageous even if prices are higher than those of fairly comparable alternatives. Much price-criticism is uninformed and unfair. A new technique is required for a new set of conditions. We now have to compete with efficient production abroad, but also with a lack of the sense of quality, with design for obsolescence and constant restless change. A new generation has grown up to whom the values for which Britain stands are a closed book. Immense, continuous efforts overseas are required not only of industry but of Government also, to overcome these difficulties, and the target is the consumer even more than the trade buyer. Special measures undertaken

continued on p. 13

"What will appeal to overseas customers in our motorcars will be the characteristics in which they differ from those of other countries—not Americanised radiators and contours"

Contrasting styles in motorcar design: Sheerline saloon and Atlantic convertible coupé, both by Austin



Tailoress sewing a button (Simon Ackerman Ltd: photo by Walter Nurnberg, FIBP, FRPS)

Cutting hide for a leather case at S. Clarke & Co Ltd; a job requiring skill and experience and impossible to mechanise

Warp. Photo by Nurnberg for Hunt & Winterbotham Ltd

Instrument-maker at the works of Evershed & Vignoles Ltd

"We must look to the craft industries for maintenance of quality standards and other values which we must retain at all costs"

by organised trades (such as the Leather Weeks recently conducted in all principal Canadian cities) showing the consumer the *best* the trade can accomplish, can do much to foster knowledge of British standards, but they could be powerfully reinforced by Government action in a much wider field, through the agency of a peripatetic exhibition designed by selective methods to show the excellence of the best British contemporary design.

Such an exhibition—gay, intriguing, informative, enlightening, speaking through actual contact of potential purchaser with lovely products—could be a revelation to vast numbers for whom Britain and her ways must remain a hazy impression unless we are prepared to overcome our insularity and diffidence, and force our works on their attention. The cost would be a mere fraction of the vast sums spent on the BIF, which is visited by a few tens of thousands of overseas buyers but is not intended for overseas consumers. Undertaken in 1950, such an exhibition would provide a valuable prelude to the Festival of Britain in the following year. The record number of foreign visitors which, it is hoped, the Festival will attract will represent only a small percentage of potential consumers in other lands. The brief of the Council of Industrial Design should be extended to permit operations outside this country.*

Such measures could at least lay the foundation of a better understanding of the values for which Britain stands, which are reflected in many of her manufactures—as opposed to ephemeral styling for quick obsolescence, which conflicts gravely with the great humanist tradition of western culture, *the differentiation of the individual from the mass.*

Pre-war display of British hats by Dobloug, Oslo

Below: Penguin Bookshop, Sydney. A private venture by Owen Clayton—not financed by Penguin's

Special displays can do much to familiarise the overseas consumer with British goods, not only in shop windows but in officially sponsored exhibitions also

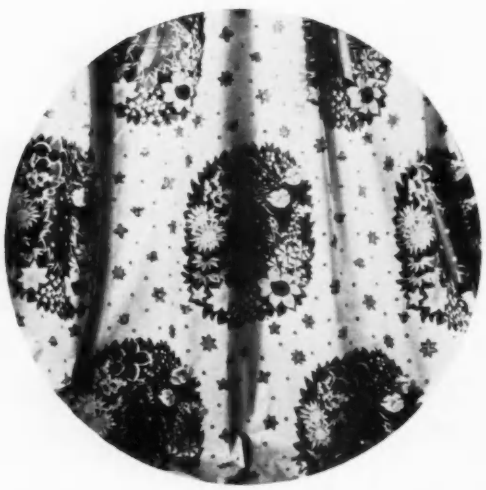
* Collaboration between the Council of Industrial Design and the British Council is a possible alternative, which has already been put into effect. At the international exhibition of industrial design in Amsterdam, last April, the British Council was responsible for the British section as a whole, and the Council of Industrial Design for the selection of products displayed in it. More recently, a wall exhibit showing Council of Industrial Design services was prepared for touring in New Zealand under the auspices of the British Council. Other joint activities are now planned. EDITOR

1951 STOCK LIST SELECTION : 5

Recent additions with a commentary by P. Morton Shand

1 There is a tendency for new materials to be considered superior to those hitherto in use just because they are new. The claim is only justifiable where the new offer practical or economic advantages over the old. For the smaller kind of kitchen canisters (such as those shown, which are primarily intended for flour, rice, sugar, etc) a synthetic resin like melamine undoubtedly presents considerable advantages over sheet-metal or earthenware because it does not dent or bulge; is tough enough to be difficult to break or crack; and lends itself to perfectly smooth shapes devoid of dust-collecting corners and crannies.

2 A simple and most useful aid for hand knitting which prevents the wool ravelling. This cone-shaped receptacle can either be stood on a table or hung from the knitter's left wrist by the short plastic loop provided. The shape of the old-fashioned, straw-plaited beehive is a sensible one to have chosen, as the concentric ridges make a plastic surface less slippery to hold. The screwed base contains a needle-gauge. The total weight is only four ounces and the retail price under two shillings.

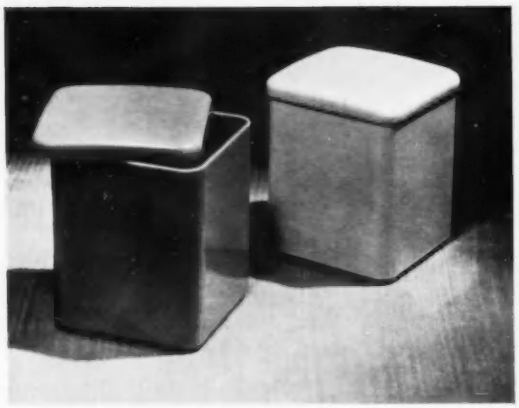


5 *Screen-printed chintz in six colours designed by Margaret Simeon and printed by Allan Walton Textiles Ltd for G. Henderson (Upholsterers) Ltd*

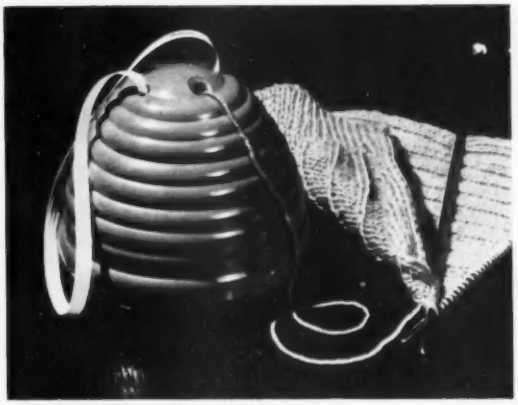
3 This neat and compact little instrument registers the margin by which the accuracy of any screw-threaded engineering component placed between its jaws deviates from standard. Its scale has a total range of one-hundredth of an inch graduated in half-thousandths of an inch, two adjustable pointers being set to mark the limits of tolerance allowed. The jaws are fitted with spiral coils of precision-drawn wire which make contact with the spiral threads of the component, and thereby record an accurate measurement of its effective diameter. Pairs of springs can be supplied for any size and type of thread that has to be tested.

4 Within fairly close limits the shapes of tumblers, wine-glasses and finger-bowls have long been stabilised; and glass being glass, major variations can only spell greater fragility or an increase in bulk and so weight.

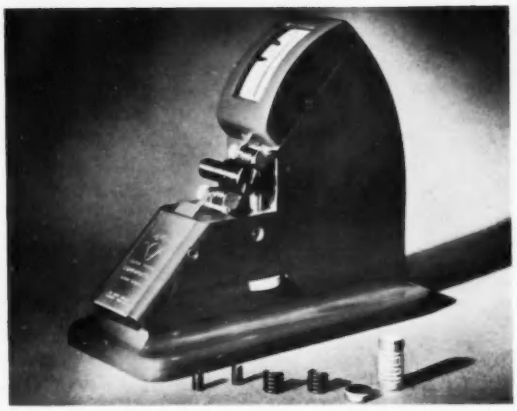
Those illustrated are factory-produced, the simple spiral decoration being mechanically applied. The flat discs between bowl and stem are not purely ornamental since these strengthen the glasses at their most vulnerable point and also provide a firmer grip for the fingers. The tall funnel-shaped glass certainly echoes the form of the traditional French champagne-glass called a "*flute*," but this, though unfamiliar in England, remains the most logical shape



1 *Plastic food canisters designed by Ronald E. Brookes, MSIA, and made by Brookes & Adams Ltd, Birmingham*



2 *The Beehive wool-dispenser designed and made by N B Mouldings Ltd, Upper Holloway*



3 *O-Vee screw-thread comparator designed and made by OV Spring Gauges Ltd, Edgware*

4 *Table glass designed and made by Orplid Glass Works, Hampstead*

for a sparkling wine as it is that which conserves effervescence longest.

The small phial with a triple bulge is a rod-stoppered scent-bottle for the toilet-table.

5 It was an eighteenth-century feminine discovery that, over and beyond their prosaic utility, loose covers for armchairs and sofas are a means by which living-rooms can don a decorative summer dress and so entirely change their appearance. Our chintzes and cretonnes are still admired abroad as major accessories in imparting that subtle atmosphere of mingled cheerfulness and intimacy for which English homes have long been envied. But garlanded roses were eventually done to death in a surfeit of Victorian blowsiness, and those grossly over-dimensioned and garishly-coloured patterns of the Edwardian era heralded an inevitable reaction. Thereafter both cretonnes and chintzes suffered a temporary exile.

From that unmerited and irrational eclipse they are now at last emerging. The two contemporary designs illustrated show a sane return to proportion in spacing and harmony in colouring. Instead of a billowy floral naturalism enchained with wriggling ribbons, motifs now tend to take the form of a single delicately stylised medallion of modest size; while backgrounds are once again carefully studied and discreetly "etched in" with a secondary decoration kept under sure control.

FRONT COVER: *Screen-printed linen in five colours designed by Margaret Simeon, printed by Morton Sundour Fabrics Ltd*

DESIGN OVERSEAS

THE SWISS occasional table shown in two photographs on left can be used for many purposes and in an almost unlimited variety of positions. The height of the whole table and the angle of its larger part are adjustable; in the horizontal position the large tray can, if required, be slid over the small one; the foot is telescopic and extends to one side to ensure stability. The range of heights is from approximately 2ft. 2in. to 3ft. 6in. The trays are of maplewood.

Manufacturers are Embru-Werke A-G, Rüti/Zürich. The table was recently illustrated in *Schweizer Warenkatalog*, a catalogue of Swiss products selected, for their good design, by the Schweizerischer Werkbund.

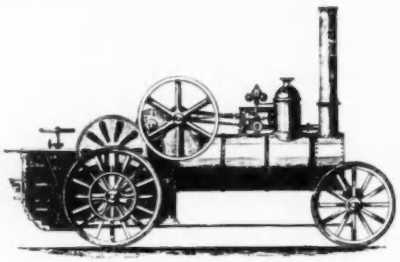
From Italy comes the photograph below. It shows units in a range of sectional upholstered furniture designed by Ico Parisi, architect, of Como. In a letter from Professor Alberto Sartoris published in DESIGN for October (page 25), Parisi was referred to as one of the best designers of furniture practising in Italy today.

Furniture from America

IN CALIFORNIA, 1949 is centennial year and during the summer months an exhibition called "Design in forty-nine" was held at the M. H. de Young Memorial Museum, San Francisco.

Here pottery, fabrics, rugs and furniture were displayed in a series of eleven room settings. Two of them are illustrated on this page: above, by Edgar Frank; on left, interior by Gump's, with furniture designed by Eleanor Forbes. The use of seating units which can be employed either together (as shown) or as separate chairs is common to this second room and to the Italian interior on facing page. Examples in Britain, too, suggest an international trend.

New American furniture shown at the Chicago Furniture Mart included (*Furnishing World*, 26 August: unillustrated) special seating for television viewing, expandable coffee tables and dressing tables with hair-dryer attachments. Foam rubber is increasingly used, in curvilinear forms, by designers who give attention to sitting postures.

THE CENTENARY OF THE Traction  Engine

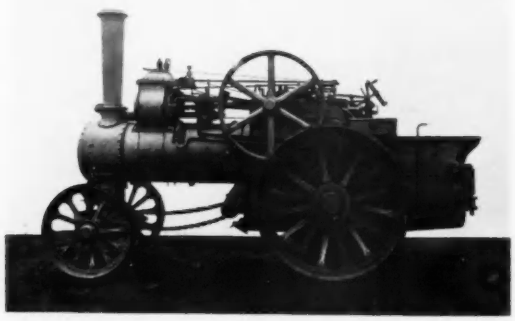
THE TRACTION ENGINE was always a rural rather than an urban means of transport, and its makers—with a few conspicuous exceptions—were small firms in country towns. The first traction engine, built in 1849, was an adaptation of an early type of portable steam engine, drawn from place to place by horses to provide power for various farmyard tasks; and the best customers of the engine-builders were farmers at home and breakers-in of undeveloped territory abroad.

During the 80 years in which traction engines were built, there were many experimental variations from the normal. Perhaps the most startling to see on a modern road would be the *Pedrail*, invented in 1902 by Bramat Joseph Diplock. In this engine, the normal rear wheel was replaced by a large hub, from which projected a number of elephantine feet, flexibly mounted so that three adjacent feet were in contact with the ground at once. A contemporary writer recorded that the *Pedrail* could be "readily constructed to travel 15 or 20 miles per hour"; in practice it does not appear to have exceeded four or five.

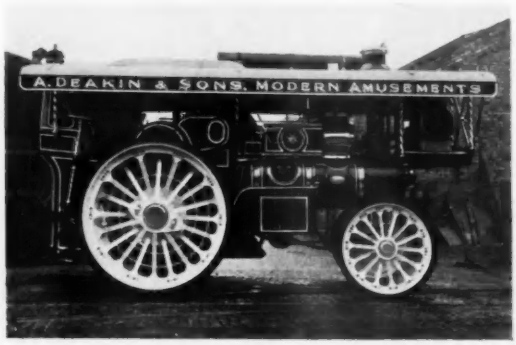
This industry, now almost forgotten, provided some early examples of specialised design for export: there were traction engines modified to burn wood or bagasse (sugar-plantation waste) instead of coal; fitted with outsize water-tanks so that they could cross long tracts of desert country; or roofed with extra-wide canopies to shelter the engine driver when he had to go Out in the Midday Sun.

Long after traction engines had ceased to be built for these uses, however, they continued in production for travelling showmen. It was in this specialised field that their design reached its highest peak. Showmen's engines were products of popular art as well as engineering. The canopy was supported by barley-sugar sticks of brass; every band encircling the boiler, every panel, every spoke was lined-out in contrasting colour; the owner's name was usually painted in elaborate shaded letters.

This care for appearance in a utilitarian machine was neither art for art's sake nor art for the sake of immediate sales, but unselfconscious art that proclaimed the manufacturer's pride in his product and the owner's pride of possession. The traction engine has now been outdated but these qualities have not, and it would be a bad day for British industry if ever they were to fade out entirely. A. D.



1920: *This seven horse-power traction engine shows a marked resemblance to its* 1869 *predecessor, at top of page*



1936: *Resplendent in paintwork and polished brass—one of the last showmen's engines built by Fowler of Leeds*

Designing a miniature soldering iron

FOR SOME TIME E. K. Cole Ltd have been interested in the possibility of producing a really miniature soldering iron, suitable for dealing with the very small and closely packed soldered joints and fragile PVC-covered wires used in various miniature equipments —radio, radar and electronic.

A variety of other uses was also visualised for such a tool; enquiries indicated that in the fields of model-making, radio servicing and other work entailing small soldered joints there existed a keen demand for a miniature soldering iron. Two or three different prototypes were made at various times but their design was based on orthodox practice and offered little advantage over a normal light soldering iron with a turned-down bit. It became clear that, to show outstanding advantages from the operator's point of view, a new type of iron was needed.

Late in 1948 requests from certain Government departments concerned with the maintenance of miniature equipments again emphasised the urgent need for a soldering instrument specifically designed for this use. These requests coincided with the beginning of work in E. K. Cole's own laboratories on a number of development projects involving sub-miniature techniques, and the firm decided to set up a small committee to prepare a detailed specification for the new kind of soldering iron that was, manifestly, needed.

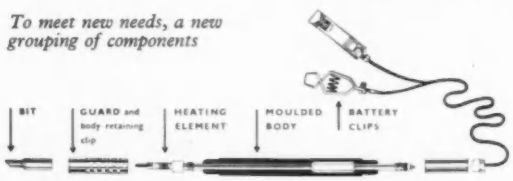
The matter was approached with all the care that is normally given to major development projects. The committee comprised an electrical engineer, a mechanical engineer, a physicist, a draughtsman, a stylist and a skilled wireman—the *user*. Its terms of reference were : (*a*) to state, in full, the essential requirements for a miniature soldering iron; (*b*) to recommend a suitable design basis. After three meetings of the committee, complete agreement had been reached on item (*a*), but considerable divergence of opinion on (*b*) was found to exist. Three concrete proposals had, however, emerged from the considerable number of ideas discussed, and it was decided to pass these to the laboratories, first for investigation and then for the preparation of detailed designs so that prototypes could be made for comparative tests.

The Ekco Solder Pencil, which is now being marketed, evolved from one of these initial designs with quite small subsequent modifications. Despite its relative simplicity, this "pencil" is of special interest because of the rigid specification to which it was designed. This stated all the features considered desirable, irrespective of individual opinion as to the possibilities of achieving them. The designer was forced to start from first principles because of the wide gap between the performance of any known soldering iron and the requirements specified.

Having considered the requirements, he first proceeded to estimate the probable amount of heat required to cope with the work envisaged, and then to work out his electrical and thermal circuits, using carefully chosen materials, so that the greatest possible proportion of the total heat generated was passed to the soldering bit, and the smallest possible fraction to the handle: it was laid down that it must be possible to grip the instrument within three inches of the soldering tip. Temperatures elsewhere had to be kept so low that PVC would not be damaged by contact with any part of the iron other than the soldering bit. This was achieved by generating the heat *inside* the bit and, by careful thermal insulation, preventing undue heat from being conducted elsewhere.

continued overleaf

To meet new needs, a new grouping of components



The result: light in weight, easy to handle

The shape, size and weight of the instrument were laid down rigidly, together with performance figures, before any design work was commenced. The questions of deterioration of materials, replacement of parts and general ease of servicing were all given due consideration. No significant departure from the original specification was permitted—a restriction which appreciably increased the technical difficulties encountered. The tabulated statement on right shows the original design specification and the specification of the final instrument.

	SPECIFIED	ACHIEVED
Heating time	Less than 1 min.	50 sec.
Handle temperature	Less than 70° C.	Less than 50° C.
Overall diameter of soldering bit	Not more than ¼in.	¼in.
Diameter of soldering tip	Not more than $\frac{3}{16}$in.	$\frac{5}{32}$in.
Length of soldering bit	Not more than 1¼in.	1⅛in.
Maximum diameter	⅜in.	⅜in.
Overall length	6-7½in.	7in.
Operating power	Not more than 20 watts	10-12 watts
Weight	Less than 4oz.	2½ oz. including lead

Appearance counts in selling dental equipment

APART FROM DENTISTS, there are probably few people who can wax enthusiastic about a piece of dental equipment. One's natural fears and suspicions may, however, be somewhat abated if it is as well designed as the dental X-ray unit illustrated here—the CDX Model E of Newton Victor Ltd.

In this instance, clean lines and trim appearance have not been achieved by accident, and the makers are by no means unaware of them. Their booklet describing the apparatus contains the unusual headline—unusual in a trade publication—"Aesthetic design." It points out that "the reaction of patients to . . . handsome equipment is a psychological factor of importance. More and more the public is becoming conscious of the presence or absence of style and taste, and the progressive manufacturer does not overlook the opportunity to combine beauty and utility in the design of his product. The CDX Model E expresses the aesthetic perception of its designer."

Attention has, moreover, been given to convenience in use as well as appearance: in the tubehead (the business end of the unit), tapered and deeply concave surfaces ensure that the operator has the fullest possible view of his field of operation; the height of the column is adjustable to 5½ inches above or below standard height to suit tall or short dentists.

The unit—latest of a series, all embodying the same basic principle of operation, made since 1923—was designed by Newton Victor's associate company in USA, but has been modified and is in production at Motherwell, Scotland.

Newton Victor dental X-ray unit, mobile type. A stationary model is almost identical in appearance except for the base, seen here, which is attached by four bolts. The folding bracket is counterbalanced so that it remains in any position, without retaining-screws

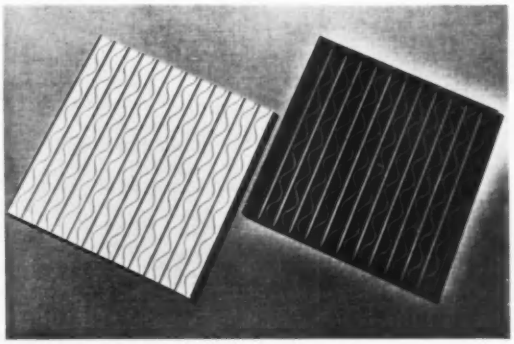
Dials are mounted on a simple control panel, inclined for ease of reading. The nameplate is unusually neat in its lettering

METHODS AND MATERIALS

Patterns in glass

A NEW METHOD of applying patterns to glass is claimed to be cheaper than existing methods. Illustrations, lettering or decorative patterns are photo-chemically incorporated in a metallic under-surface deposit. They can be reproduced in colour against a silver mirror surface, in silver against a coloured background, clear glass against mirror, or silver on clear glass. The glass can be thinner—and therefore lighter—than glass which has to be brilliant-cut or deep-sandblasted.

Apart from the usefulness of the process in display and interior decoration, applications recommended by its sponsors (Novolor Ltd, 6-9 Charterhouse Square, London, EC1) include scientific-instrument scales. With printing on the undersurface of the glass, errors in reading due to parallax can be avoided.

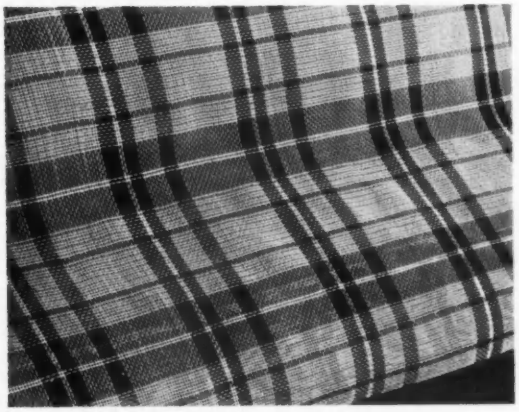


Novolor glass: two variations of one pattern are shown here

Plastic-coated yarn

UPHOLSTERY FABRICS, mosquito netting and shoes are some of the varied uses of Plexon yarn. Made by British Plexon Ltd, 28 James Place, Leith, Edinburgh 6, this yarn consists of a plastic coating on a firm fibre base, which, it is claimed, gives stability to the yarn, makes weaving easy, and ensures that the woven fabric will not stretch.

Perspiration, oil, grease and mild acids do not affect Plexon yarn. It is available in brilliant colours, Fadeometer-tested, and in a number of counts from .01 to .06 inch in diameter. Special sizes can be made to order.



Plexon yarn: plastic coating on a textile fibre base

Cotton with a difference

A FINE COTTON which is virtually a new material is the result of considerable research and experiment by its manufacturers, John Clarke Ltd (Bank Top Mills, Preston, Lancs) and processors, John Stanning & Sons Ltd. It is made in three finishes—soft, semi-stiff and stiff—which have been tested by the Bleachers' Association Ltd and are permanent. It is considered suitable for the high-class dress trade, and for use in lampshades, bed and dressing-table drapes, curtains and interior decoration.

Cotton fabric by John Clarke Ltd. The photograph gives some idea of its texture and variety of weaves

Industrial Design Abstracts

American office machines [A]

The demand for office machinery in the United States is sufficient to justify the use of engineering-design techniques based on processes of manufacture and tools which reduce to a minimum the need for highly skilled labour; the European tendency to rely on much more individual machining of unit parts is, therefore, almost completely avoided in the best American designs. In portable machines such as the desk type of calculators, the design is affected very considerably by the increasing demand for smaller models.

Mechanical Engineering, New York, September 1949.

Byzantine silks [P]

The Western motifs used by the Byzantine silk weavers were gradually transformed by an overgrowth of Oriental elements, classical and Sassanid forms being used side by side until about the sixth century. By the eighth century representations of animals included griffons, hippocampi and winged horses. Under the Macedonian dynasty delicate shades such as peach and apricot were used and designs were blended perfectly with their decorative framework. The richly ornamented liturgical fabrics of the twelfth to fifteenth centuries are an example of this work at its most elaborate.

Ciba Review, Basle, August 1949.

Consumers' influence [A]

Gregor Paulsson reviews the teaching of industrial art in Europe since 1850, and concludes that in order to solve the problems created by mass production, an informed and militant consumer market must be built up to break the producer's monopoly in determining the form of an article. A feeling for good form should be instilled from the elementary school onwards, and the study of consumers' needs made the basis for teaching in applied art.

Werk, Zurich, August 1949.

Design of machinery [A]

An analysis of the essentials of good machinery design based on the principles of motion study is made by Dr L. G. Fuchs. Primarily the design should facilitate simultaneous, symmetrical, rhythmic and slightly curved movements. Other points of importance are: outer machine controls should be at elbow height and of the push-pull variety; controls should generally be adapted to the size of hand of the machine operator; motion sequences should be facilitated by the application of clamping devices and automatic feed of material; protective devices should be designed not to hinder the operating motions, and stopping and starting switches should be distinguished both by colour and by size. In addition the design of the machine should lend interest to the job, by allowing scope for the operator's sensory faculties. So far only the visual aspect has been considered, in the use of colour and in giving a clear field of vision; in the handling of machinery, however, touch is often more important, and tools designed to utilise the worker's sense of touch should have projections and points of reference which can be felt as distinctly as they can be seen.

The Times Review of Industry, September 1949.

English glassware [A]

One of the most significant trends in recent glass design is the concentration on simple forms rather than on decoration. Harmonious, flowing designs have been evolved in which full use is made of the purity of clear glass and in which pale colours have also been introduced. Lightly cut decoration is no longer emaciated and unrelated to the form of the vessel; pressed glass has gained complete emancipation from the traditional cut glass patterns; and the application of ceramic colours is being used to obtain novel effects at low cost.

Pottery and Glass, September 1949.

Government offices [A]

The Ministry of Works has produced a demonstration office at Ebury Bridge House to act as an experiment for data on the re-equipment of Civil Service offices. Information collected on temperature, light intensities, noise levels, space distribution, colour, types of equipment, has been utilised to obtain optimum working conditions. Pastel shades have been largely used, and of these salmon pink has proved the most popular. The carpets are mottled, the linoleum bright in colour. The steel furniture has been finished in putty and grey, not the usual olive green. The chair design has been developed from the Suffolk chair. Upholstery is in fabric, as plastic and leather cloth tend to make clothes shine.

Business, September 1949.

Jablonec jewellery [A]

The Jablonec jewellery industry was built up on the faithful imitation of real gold and stone jewels in ordinary metals and glass paste. While this helped to perfect the manufacturing skill of the craftsmen, it limited the range of designs and tended to restrict the market. The line of traditional designs has therefore been supplemented by a modern range in which new decorative materials are used, and this has proved popular.

Czechoslovak Glass Review, Prague, No. 3, 1949.

Trade-mark designing [A]

In this article on trade-mark designing the Japanese flag is cited as an example of the most successful type of trade-mark. Its elements are of the simplest, yet combine the greatest possible contrasts in form and colour. The red disc is itself an ancient and universally significant symbol. Methods of designing are discussed in detail, with particular reference to the use of colour, initials and monograms, pictorial representation of names, symbolic representation of products or services, syntheses of already familiar symbols, and the possible combinations of these elements. Illustrated with 36 trade-marks designed by the author, Dr Hahn. In German.

Graphik, Stuttgart, No. 1, 1949.

Women's electrical needs [A]

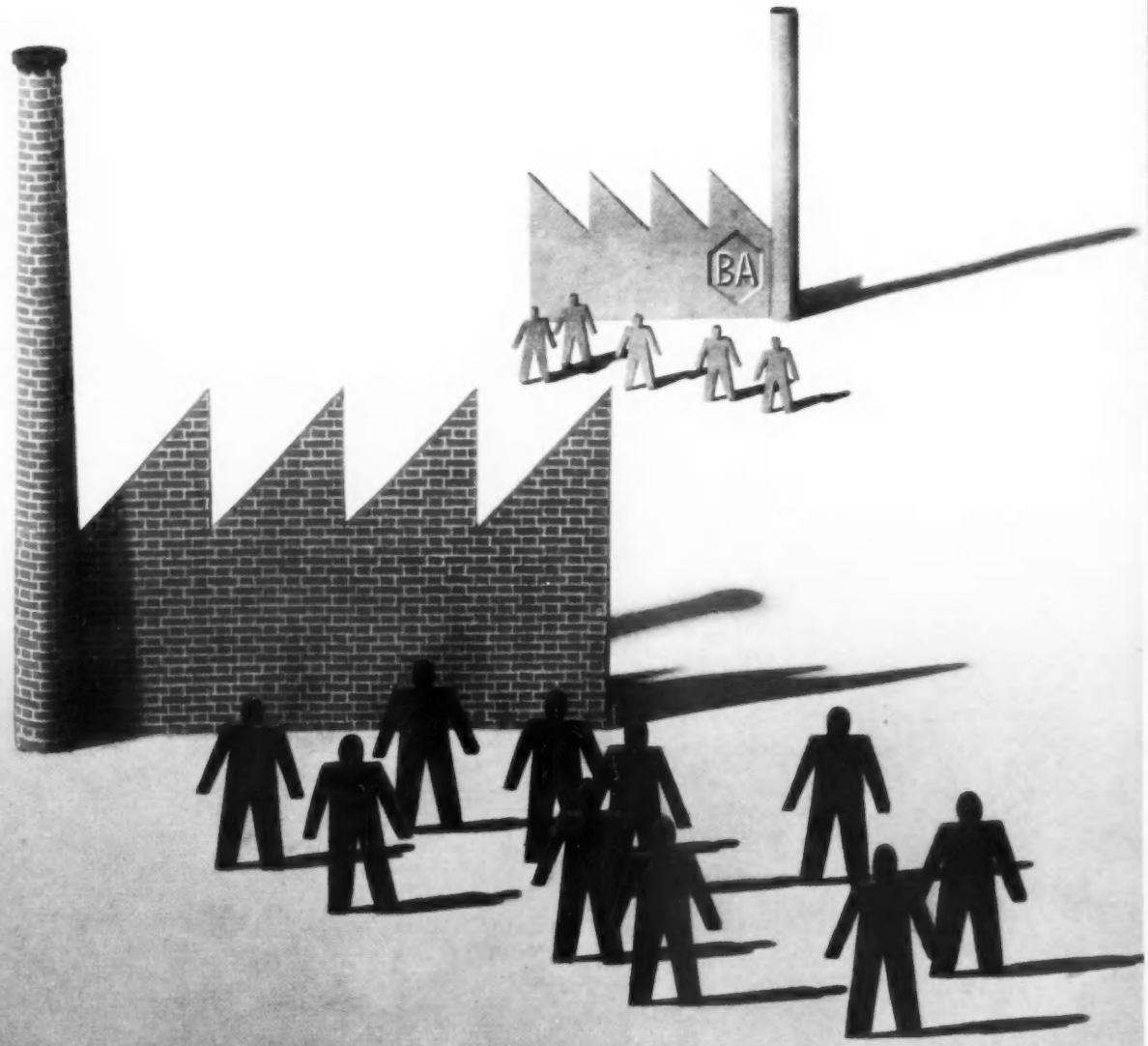
American ideas in electric appliances that might be adopted over here are reviewed by Mary Gilbert. The Americans have replaced the solid plate of the cooker by quick-heating sheathed radiant coils with direct contact to the saucepan. These coils are convenient, saving of current, and the glow gives visual satisfaction. Push-button controls, with five speeds of heating to each surface unit, drop-down doors with wide, grippable handles, and interior lighting are usually found in their ranges. A significant development in refrigerator design is the "combination" type cabinet, with an upper self-contained freezing cabinet and a lower storage cabinet operating separately.

Electrical Review, 2 September 1949.

The letter appearing in the title of each abstract indicates the form of the publication from which that abstract is taken: [A] article or articles in a periodical; [B] book; [P] pamphlet; [S] supplement or special number. Place of publication is London unless otherwise stated.

HENRION

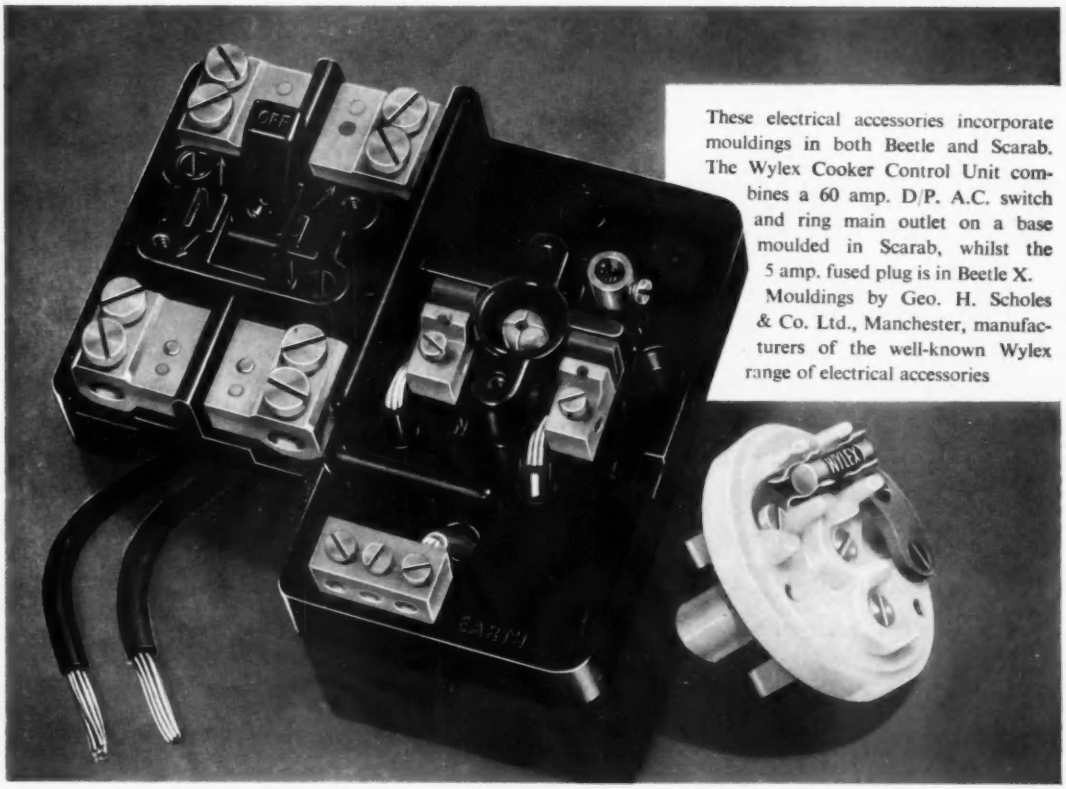
Aluminium halves deadweight and frees manpower for **productive** operations



HENRION

The British Aluminium Co Ltd

SALISBURY HOUSE LONDON WALL LONDON EC2



These electrical accessories incorporate mouldings in both Beetle and Scarab. The Wylex Cooker Control Unit combines a 60 amp. D/P. A.C. switch and ring main outlet on a base moulded in Scarab, whilst the 5 amp. fused plug is in Beetle X. Mouldings by Geo. H. Scholes & Co. Ltd., Manchester, manufacturers of the well-known Wylex range of electrical accessories

Both Beetle and Scarab moulding powders produce mouldings of high dielectric strength, good insulating and high non-tracking properties. In addition, these materials are available in a wide range of colours: Beetle in translucent, semi-translucent and opaque shades, economical Scarab in opaque colours only. Whenever there's an electrical moulding job to be done, from a small component to a radio cabinet, white or coloured, there is available a suitable grade of Beetle or Scarab. The B.I.P. Technical Service is always on call to help you choose the right material and ensure the best results.

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LETTERS TO THE EDITOR

Distinctive British design

SIR: The reference in your "Notebook" (July, p. 24) to the comment of a critic of industrial design in Holland that a distinctly English (British ?) style of design is already noticeably apparent, augurs well for exhibitions of our products in 1951.

A significant statement in *The Observer* made recently by that journal's Washington correspondent on the return of unsold cars from America, is worth quoting in support of the need for that distinctive touch in British products intended for export:

> "The only British cars known in Washington to have been returned are a consignment of the bigger ones. This was due not to any failure to satisfy American regulations governing design, which are unchanged, but to a lack of demand. The reason appears to be that they do not appeal to buyers because they are too much like American cars, but not sufficiently competitive in price.
>
> "The American market, where it exists, is still for distinctively British cars which do not compete with the popular American makes in their own field." (*The Observer*, Northern edition, 7 August 1949.)

Though market research must ensure that the product is a practical proposition for the foreign customer to buy, use and service or maintain, let it not overstep itself in fostering an undesirable camouflaging of British-made articles. Let, rather, the latter's good design speak for itself without a blush, except perhaps for modest pride of origin.

Manchester R. M. KAY, BSc Tech, DAA

Design and the retailer

SIR: The recent correspondence on design and the retailers and particularly the letter from Mr Noel Jordan seems to leave two very important questions unanswered.

First, does the professional designer know what the public wants any more than the retailer; and second, how can well-designed furniture (according to the designer's standards) be sold to the average working class, hire purchase, retailer?

It is, I think, a fallacy of many designers to take a too intellectual approach to furniture. After all, the majority of customers are young couples, just getting married, who are full of romantic ideas, far more interested in impressing the neighbours and having a "nice bit of burr walnut" than in the subtleties of the designer's art. There is undoubtedly a substantial minority who do think as the designer does, but the custom of these people is not sufficient to keep a large factory in full-scale production. One can argue against this point of view, but it is a significant fact that retailers are having to sell off their remaining BOT Utility stocks at greatly reduced prices.

Working under these conditions, a designer must compromise between an excess of glamour and a too severe functional design. Certain principles should never be abandoned. The overall proportions of an article must be right; the accommodation (cupboards, drawers, etc) must be adequate; materials should not be abused—keep clear of walnut-grained plastic and synthetic pressed carvings—and, above all, the construction should be on the highest level consistent with the selling price of the piece. On the other hand, the customer demands glamour, but this should not detract from the basic design.

One can use exotic veneers, either alone or as contrasts; dressing-table mirrors can be shaped, handles can be fairly elaborate, so long as they do their job; there is no great harm even in introducing some carving—if it is not overdone.

Furniture designed on these lines may not be all the purist demands of design, but at least it is better than 90 per cent of the "Borax" one sees in the shops. Both the retailers and the general public seem to approve, and I think it marks a definite stage towards a policy of good design.

DENIS SNOWMAN
London E3 *Designer, Palatial Ltd*

More about tricycles

SIR: We noted with interest, in the correspondence column of DESIGN for September, the remarks relating to tricycles.

The tricycle, made from U-section light metal castings, referred to below

We think it may be of interest to you to see the illustration of our latest model, which has been designed to use aluminium alloy U-section castings, the machine being built up in three pieces—the rear axle portion, the backbone and the front fork. The whole appearance is enhanced by this design, which gives a more pleasing effect than the conventional tubular type of construction.

H. L. HILL *for*
The Midland Repetition & Auto Manufacturing Co Ltd
Coventry

Editor to Editor

SIR: I was interested to see the article on Liberty's store in your September issue. I would point out, however, that part of the caption on page 4, which runs ". . . . avordire, a rare golden-yellow South African wood," is somewhat misleading. "Avordire" is presumably a reference to "avodiré," a well-known commercial timber, the habitat of which is not South Africa, but the Gold Coast and other West African regions.

London SW1 P. M. NAIRN, Editor, *Wood*

Sign on a French roundabout, from a correspondent who comments: "Evidently it is not only in tartan patterns (DESIGN, *July, p.* 15) *that French design is showing Scottish influence"*

Designing for the Designer

MOULDING IN BAKELITE powders gives designers the advantages of a number of natural materials combined in one product — approaching the strength of steel with the lightness of wood, the durability of metal with the dielectric properties of porcelain plus also a wide range of attractive colours. And the research and development departments of Bakelite Limited are constantly working for the designer — supplying moulding powders to give exactly the right characteristics for his particular job. When any project is being discussed, it will pay to consider the advantage of moulding in BAKELITE materials.

TREFOIL

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NOTEBOOK

Design and management

JUSTIFIABLY, THE Harvard School of Business Administration has been called "one of the main citadels of American industry." Over the last quarter-century, industrialists have increasingly recruited future executives from this School, and it is of more than local interest that the Directors have now been convinced that design policy is the concern of management. The man who has convinced them is himself a former Harvard student, Arthur Houghton, director of Corning Glass Works in charge of the Steuben division.

We are reminded of this encouraging development by an article in the current issue of *Lifeline* (Geoffrey Bles, 3*s* 6*d*), whose author comments: ". . . Ultimately a steady steam of young men will be poured into the upper reaches of industry, convinced as never before of the importance of the part that design should play in the planning of production. . . . This represents an advance of which the significance can hardly be overstated."

"An old engine, but a good one"

While delving into the long history of traction-engine design for the article which appears in this issue, we were shown some of the early records of Fowler's of Leeds. For anyone with an interest in the historical background of present-day design it is a delight to study their catalogues—especially one dated July 1869. It contains some superbly detailed wood-engravings of their various machines (mostly signed "Hare"), from one of which the illustration at top of p. 18 is reproduced. Its text is in correspondingly formal Victorian prose; the original description of the traction engine shown stated reassuringly: "The boiler is made with fixings to receive all the brackets on which the working parts are mounted: thus obviating the necessity for any holes being made in it."

A Fowler catalogue of the late 1920's seems, by comparison, still hot from the press. One of the many testimonials which it contains should surely be included in any anthology of English letters composed by unlettered men. Written in 1925, it referred to an engine delivered in 1878: "I know it is an old engine, but she is a good one for an old one, and will thresh all day."

The firm itself is one year younger than traction engines, and celebrates its centenary in 1950.

Testing for the electrical trade

Unusual enterprise by a trade journal: *Electrical & Radio Trading* is now publishing regular reports on electrical appliances from the user's point of view, based on tests by Joan Storey, domestic science adviser to Odhams Press. The tests are made in an electric kitchen at the paper's offices, and it is justifiably claimed that they "give a new viewpoint on the marketing of consumer goods." They can be valuable to designers, manufacturers and retailers.

Aesthetic criticism is not part of Miss Storey's duties (for which she will no doubt be thankful), but criticism of inefficiency and inconvenience is. Her first report, on electric food mixers and beaters, contained plenty of constructive suggestions: it stressed the need for unbreakable heat-resisting bowls; for switches which are not merely ON or OFF but enable speed to be controlled; for space to accommodate large bowls; and for better instruction books. A weakness in the design of all the appliances tested (six makes) was their failure to eliminate hand mixing completely: "a small amount of the ingredients, which cannot be wasted, remains on the bottom of the bowl . . . and this has to be mixed-in by hand."

Sixteen manufacturers are making or about to make electric mixers in this country, and the trade is not finding them easy to sell at retail prices of £14 or £15 plus tax.

Silver design competition

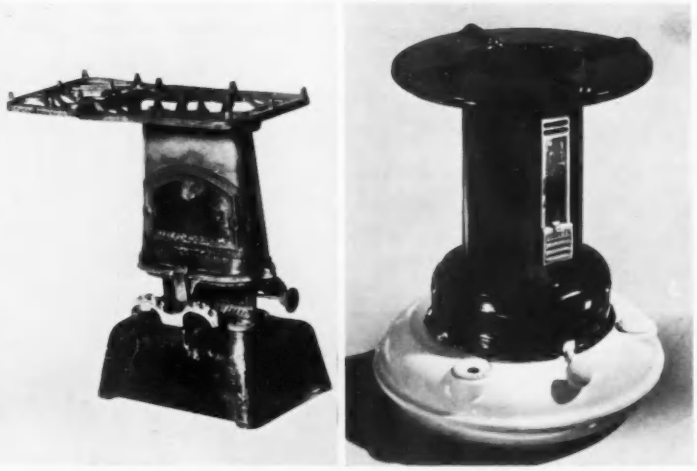
The Design & Research Centre for the gold, silver and jewellery industries announces another National Design Competition, with prizes totalling £600. It is open to all designers in the United Kingdom—staff or freelance—and there are sections for designs of products as various as a gold powder compact, a silver cake dish, and costume jewellery in base metal for quantity production. Drawings must be submitted by 31 January next, giving time for the winning entries to be made up and shown at the BIF.

Further details, and entry forms, are obtainable from the Design & Research Centre, Goldsmiths' Hall, Foster Lane, London EC2.

Caledonia from America

On both sides of the Atlantic there is a revival of interest in Scotch Roman type-faces. New designs are being put into production and old ones used more widely within their proper sphere, bookwork. Examples of the new faces are Intertype *Waverley* (at present available only in USA) and Linotype *Caledonia*. The latter has been introduced from America to Britain by Linotype & Machinery Ltd. It is at present available here in three sizes

continued overleaf



Beatrice oil stove, made in 1914 *and returned for repair in* 1948*; and a new boiling stove about to be produced by the same makers, John Harper & Co Ltd, Willenhall. New model, designed by D. H. Lewis, director; reproduced from* Designers in Britain 2

(9, 10 and 11 point), while three more (6, 12 and 14 point) are "in process." *Caledonia* is well rounded and readable and its designer has acknowledged, as the source of his inspiration, the type cut by William Martin for the English printer Bulmer *c.* 1790.

Over the last few years, National Book League exhibitions of book design have provided an indication of the growing use of Scotch Roman types. In these exhibitions they have been represented by two Monotype faces, *Bell* and *Scotch Roman*, which accounted for only one book out of 79 in the 1947 exhibition, whereas in 1948 the percentage had risen to six and in 1949 to eight.

This is Linotype
CALEDONIA
designed by
W. A. DWIGGINS
A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o
p q r s t u v w x y z

New books

The photograph of the new Harper oil-stove on page 27 comes from *Designers in Britain 2*, which is reviewed on page 1. Edited by Peter Ray, FSIA, and compiled by the Society of Industrial Artists, it is published in England by Allan Wingate (45*s*) and in USA by Museum Books Inc. This new volume has 246 pages, 12 x 9½in.

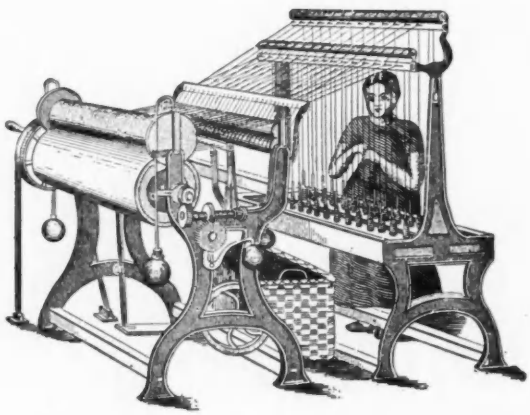
Other books received include, from The Studio, the latest editions of two well-known year-books, *Decorative Art 1949*, edited by Rathbone Holme and Kathleen M. Frost (25*s*) and *Modern Publicity 1949*, edited by F. A. Mercer and Charles Rosner (30*s*); and a revised edition of *Lettering of To-day* by C. G. Holme, originally published before the war (15*s*). An Italian counterpart of *Decorative Art* is *L'Arredamento Moderno*, by Roberto Aloi, with 800 photographs: published by Ulrico Hoepli, Milan, at 4500 lire.

Ethel Mairet, RDI, is the author of *Handweaving Notes for Teachers* (Faber, 6*s* 6*d*). Batsford have recently published *Educational Craftwork in Wood* by Percy Yabsley (10*s* 6*d*) and *Treen* by Edward H. Pinto (25*s*). Treen are small wooden objects from butter-pats to wig-stands, generally products of peasant art and now in many instances collectors' pieces.

Of historical interest are *Glass in Antiquity* by Frederic Neuberg (Art Trade Press, 30*s*), *Pottery & Ceramics* by Ernst Rosenthal (Penguin, 1*s* 6*d*), and *Old Kingdom Art in Ancient Egypt* by Cyril Aldred (6*s*), a new volume in the "Chapters in Art" series published by Alec Tiranti—the first of four books planned as a comprehensive introduction to Egyptian art.

From Oxford University Press comes a revised edition of John C. Tarr's *Printing To-day* (7*s* 6*d*).

Trade publications of unusual interest include a pamphlet from Bakelite Ltd on *Bakelite Plastics in the Textile Industry*, and a book from William Hollins Ltd entitled *Hollins: a Study of Industry*, giving a history of the firm from 1784 to the present day. The author is Stanley Pigott and his researches make a real contribution to Britain's industrial history. The book is also—in its typography, illustrations, cover and jacket—a fine example of bookwork in an appropriately formal style: designed by John Lewis and printed at Ipswich by W. S. Cowell Ltd.



Warp beam and creel, c. 1870—*one of several illustrations of early textile machinery in* Hollins; a Study of Industry, *by Stanley Pigott.* (*See "New books," this page*)

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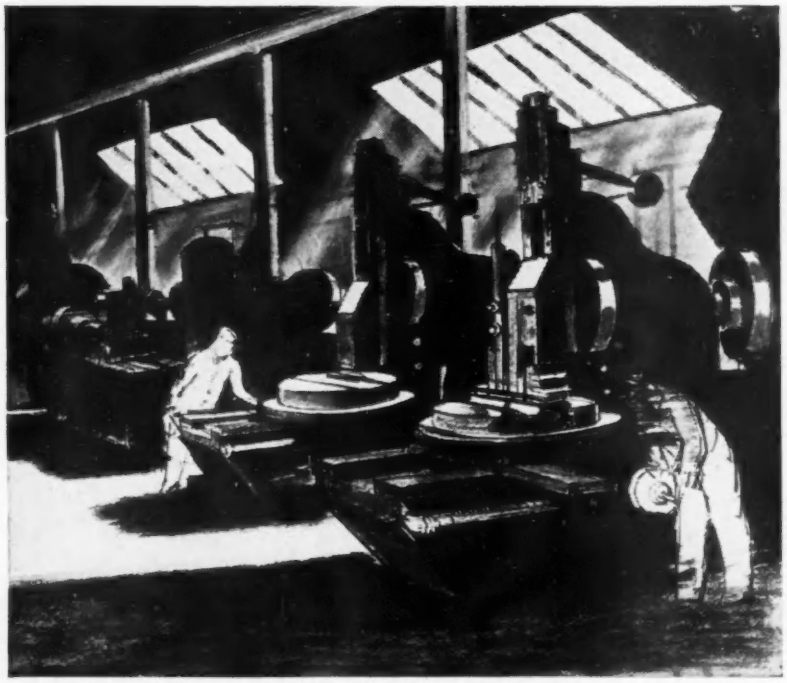


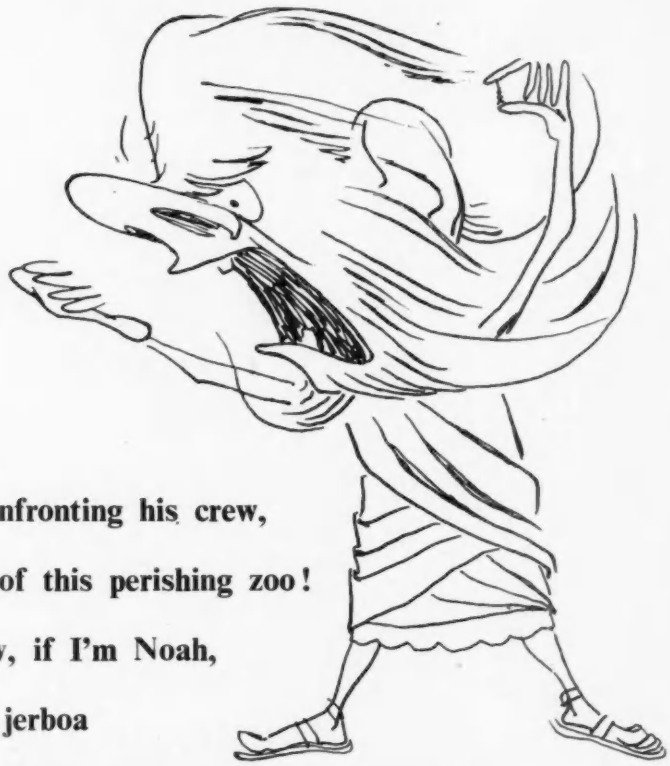
MACHINE-SHOP

The machine-shops of the world are busy night and day. Behind them lies the work of the chemist. No engineering works can run without oil. It is the chemist who tirelessly seeks improvements both in methods of oil production and the provision of lubricating and cutting oils of greater efficiency and economy. The use of oil at one stage entails its removal at a later one, and one of the British chemist's outstanding contributions to engineering lies in the development of new methods for removing oil and grease. No longer is it necessary to strip the grease from engine or metal parts by hand-labour, with all the dirt and delay this involves. Instead they can be " degreased " in a few minutes, even seconds, by the trichlorethylene process. Nor is the chemical industry content merely to produce trichlorethylene and its allied solvents: it has designed and made available special " degreasing " apparatus. British chemical research has led to developments in the heat treatment of metals, an example being the casehardening of steel which can now be performed simply and efficiently by means of baths of molten cyanide. It has also devised an easy method of carrying out the annealing of metal strip and wire by what is known as " bright annealing ", so that the descaling of the metal by separate processes is avoided. Finally, it has made available a multitude of finishes, such as electro-plating and rust-proofing, which are essentials to modern engineering practice. The relationship between the chemist and the engineer is a happy one. The chemist contributes to improvements in the machine-shop. The engineer responds by helping the chemical industry to solve its problems and thereby to advance the value of the service it gives to Industry as a whole.

ICI

IMPERIAL CHEMICAL INDUSTRIES LIMITED

P.R.11



Roared Noah confronting his crew,

"I'm in charge of this perishing zoo!

And I'll know, if I'm Noah,

Who fed the jerboa

A N-P-K Type Z Phillips recessed countersunk-head

hardened self-tapping screw!"

N.P.K. hardened self-tapping screws which cut their own threads in drilled, formed or moulded holes are used for making fastenings to a wide range of materials. They do away with the need for tapping, insets and auxiliary fastening devices and make stronger fastenings. N.P.K. are not, of course, the answer to all fastening problems but all the answers are available to those who ask for them.

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